Listing of Claims:

1. (Previously Presented) A method of aligning optical components of a photonic package, said method comprising:

initially aligning the optical components;

fixing the optical components with respect to one another through laser welding;

after fixing the optical components, determining a direction to plastically deform at least one of the optical components through performing a sweep of force vectors; and

applying a force in the determined direction to plastically deform said at least one of the optical components to re-align the optical components.

2. (Previously Presented) The method of claim 1, wherein said initially aligning comprises: providing an actual position signal as a feedback; and driving at least one motor to align the optical components using the actual position signal.

3. (Previously Presented) The method of claim 1, wherein said applying the force in the determined direction comprises: providing a force feedback signal; and controlling an applied force vector using the force feedback signal.

4. (Original) The method of claim 1, further comprising performing a linear sweep of force vectors to confirm the determined direction.

5. (Previously Presented) The method of claim 1, wherein said performing the sweep of force vectors comprises elastically deforming at least one of the optical components using the force vectors.

6. (Previously Presented) The method of claim 5, wherein said performing the sweep of force vectors further comprises measuring an optical signal output associated with each force vector.

7. (Previously Presented) The method of claim 6, wherein said determining the direction comprises selecting the direction of a largest optical signal output measured during the sweep.

8. (Previously Presented) The method of claim 1, wherein said applying the force comprises: grabbing one of the components; and moving the grabbed one of the components in the determined direction.

9. (Previously Presented) The method of claim 1, wherein said applying the force comprises gradually increasing the force in the determined direction until a desired force level has been reached.

10. (Previously Presented) The method of claim 9, wherein said applying the force further comprises gradually decreasing force to a zero force level.

11. (Original) The method of claim 10, further comprising measuring an optical signal output after the force has been decreased to the zero force level.

12. (Previously Presented) The method of claim 11, wherein said applying the force further comprises holding the force constant at the desired force level for a predetermined period of time prior to gradually decreasing the force.

13. (Original) The method of claim 12, wherein a duration of the constant force is increased if the optical signal output does not have a predetermined strength.

14. (Original) The method of claim 13, further comprising applying the force to plastically deform said at least one of the optical components after increasing the duration of the constant force.

15. (Original) The method of claim 11, wherein the desired force level is increased if the optical signal output does not have a predetermined strength.

16. (Original) The method of claim 15, further comprising applying the force to plastically deform said at least one of the optical components after increasing the desired force level.

17. (Original) The method of claim 1, further comprising, if too much force has been applied, determining the direction to deform said at least one of the optical components through performing the sweep of force vectors; and applying the force to plastically deform said at least one of the optical components.

18. (Original) The method of claim 1, further comprising, if the direction cannot be determined, increasing a magnitude of the force vectors; and performing the sweep of force vectors.

19. (Previously Presented) The method of claim 1, wherein said performing the sweep of force vectors comprises performing the sweep of force vectors on at least one plane in space.

20. (Previously Presented) A system for performing a force bend alignment to re-align optical components of a photonic package after permanent fixation, comprising:

a stage capable of providing movements and exerting force in at least one direction; and

a gripper suitable for grabbing an optical component of the photonic package,

wherein the gripper is adapted to perform a sweep of force vectors on at least one of the optical components of the photonic package in an automated manner to determine a direction to plastically deform a supporting member coupled to said at least one of the optical components to re-align the optical components.

21. (Original) The system of claim 20, wherein a force vector is applied to the supporting member to deform it, said system further comprising a control feedback loop for providing a force feedback signal and for adjusting the applied force vector using the force feedback signal.

22. (Original) The system of claim 21, wherein the force feedback signal is used to zero out forces exerted by the gripper upon grabbing the optical component to perform the sweep of force vectors.

23. (Original) The system of claim 21, wherein the control feedback loop provides an actual position signal, which is used to control initial alignment of the optical components.

24. (Original) The system of claim 20, wherein said at least one of the optical components is plastically deformed so as to realize the re-alignment.

25. (Original) The system of claim 24, wherein the optical components comprise a ferrule, and the supporting member comprises a clip attached to the ferrule, and wherein the clip is plastically deformed by grabbing the ferrule with a gripper and exerting force on it through moving at least one of the stage and the gripper.

26. (Original) The system of claim 25, wherein the optical components further comprise a laser or photodetector, and wherein the re-alignment is between the ferrule and said laser or photodetector.

27. (Original) The system of claim 25, wherein a direction to deform the clip is determined through measuring an optical signal after applying each force vector during the sweep.

28. (Original) The system of claim 27, wherein a linear sweep of the force vectors is performed to confirm the direction to deform.

29. (Original) The system of claim 25, wherein the gripper grabs the clip softly or loosely, whereby the gripper does not exert torsion forces.

30. (Previously Presented) A method of aligning optical components of a photonic package, said method comprising:

a) aligning the optical components;

b) fixing the optical components with respect to one another through laser welding;

c) determining a direction to plastically deform one of said optical components through performing a sweep of force vectors;

d) applying a force having a peak value in the determined direction to plastically deform said one of the optical components to re-align the optical components;

e) measuring an optical signal after said plastic deformation; and

f) if a predetermined signal strength is not achieved with the optical signal, repeating c) through e) with the force in d) having the same peak value or a different peak value.

31. (Previously Presented) The method of claim 30, wherein said applying the force in step d) comprises: providing a force feedback signal; and controlling the applied force using the force feedback signal.

32. (Previously Presented) The method of claim 30, wherein said performing the sweep of force vectors in step c) comprises performing the sweep of force vectors on at least one plane in space.

33. (Previously Presented) The system of claim 20, further comprising a pneumatic gripper stop adapted to prevent complete closure of the gripper.

34. (Previously Presented) The system of claim 33, wherein the pneumatic gripper stop comprises adjustment screws adapted to be altered to adjust a looseness of the gripper.

35. (Previously Presented) The method of claim 1, wherein said applying the force comprises determining the force to be applied, and applying the determined force in a controlled manner.

36. (Previously Presented) The method of claim 3, wherein the force feedback signal is a function of an actual applied force and an estimated applied force, the actual applied force being applied to the optical components and measured by a force transducer, the estimated applied force being determined by measuring current supplied to a force applying mechanism when applying the force in the determined direction.

37. (Previously Presented) The method of claim 30, wherein said performing the sweep of force vectors comprises elastically deforming at least one of the optical components using the force vectors.

38. (Previously Presented) The method of claim 37, wherein said performing the sweep of force vectors further comprises measuring an optical signal output associated with each force vector.

39. (Previously Presented) The method of claim 38, wherein said determining the direction comprises selecting the direction of a largest optical signal output measured during the sweep.